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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/520,068 | 01/05/2005 | Hirohisa Tanaka | 71465.00010 | 5115 |

57362 7590 10/30/2006

AKERMAN SENTERFITT
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WASHINGTON, DC 20004

EXAMINER

VAN DYKE, TIMOTHY C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1754

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/520,068

Applicant(s)

TANAKA ET AL.

Examiner

Timothy C. Vanoy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date July 6, 2006
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- ☐ Notice of Informal Patent Application
- ☐ Other: ____

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DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In this application, the abstract exceeds 150 words in length and is, therefore, too long.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent 6,261,989 B1 to Tanaka et al.

Col. 4 Ins. 32-49 in U. S. Patent 6,261,989 describes what appears to be the same method for making perovskite-type metal oxide compositions (please also see col. 3 In. 30) by the so-called "alkoxide process" which includes the steps of preparing an alkoxide mixture containing cerium, zirconium, and optionally rare earth metals and/or alkaline earth metals in a pre-determined ratio; then adding deionized water to the alkoxide mixture to cause the zirconium, cerium and other rare earth elements (an/or alkaline earth metal elements) to co-precipitate or hydrolyze, and thereafter heat-treating the resulting co-precipitate or hydrolysate to provide the target cerium complex oxide.

Examples of alkoxides usable for preparing the alkoxide mixture include methoxides, ethoxides, propoxides and butoxides of cerium, zirconium and other rare earth elements (and/or alkaline earth metals).

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by the article titled "An Intelligent Catalyst" by Hirohisa Tanaka et al.

On the 3rd page under the "Experimental" section, there is disclosed a method for making a perovskite powder catalyst by co-precipitation of Pd, comprising the steps:

- dissolving metal ethoxyethylates in toluene;
- adding an aqueous solution of palladium nitrate to the solution to hydrolyze the components and obtain a precipitate;

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drying the precipitate;

calcining the precipitate at 700 °C for 4 hours to produce the perovskite powder containing palladium.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan Patent Document No. 11-262,663 A (hence "JP-663").

Paragraph no. 0018 et seq. in JP-663 describes a method for making $\text{Sr}_3\text{NiPtO}_6$ comprising the steps:

dissolving $\text{Sr}(\text{OC}_3\text{H}_7)_2$ in a mixture of 2-propanol and 2-methoxy methanol;

adding $\text{Pt}(\text{C}_5\text{H}_7\text{O}_2)_2$ to this mixed solution and stirring the solution at 70 °C for 12 hours;

adding this solution to a support dispersion liquid and also adding nickel $(\text{CH}_3\text{COO})_2 \cdot 4\text{H}_2\text{O}$ to the resulting solution and holding this mixture at 70 °C for 1 hour;

adding deionized water to the suspension to hydrolyze the components;

(evidently) the resulting solids were calcined at 500 °C for 3 hours to obtain a catalyst powder of the general formula: $\text{Sr}_3\text{NiPtO}_6$.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan Patent Document No. 3-68,451 A (hence "JP-451").

The English abstract of JP451 describes a method for producing perovskite-type double oxide, comprising:

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adding citric acid to a solution of metal nitrates (please see the upper left portion on pg. 5 within the text of JP-451) to prepare an aqueous solution;
evaporating this aqueous solution to dryness, and
calcining the resulting solids to form the perovskite-type double oxide.

The following references are made of record:

U. S. Patent 6,534,031 B2 disclosing a process for preparing high surface area triple layered perovskites, and

U. S. Patent 6,531,425 B2 disclosing a catalytic converter comprising perovskite-type metal oxide catalyst.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy C. Vanoy whose telephone number is 571-272-8158. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Timothy C Vanoy
Timothy C Vanoy
Primary Examiner
Art Unit 1754

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